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IN THE

Supreme Court of the United States

OCTOBER TERM, 1995

JAMES J. MALOT,

Petitioner,

v.

ROY F. WESTON, INC. and
WESTON SERVICES, INC.,

Respondents.

Petition for Writ of Certiorari to the United States Court of Appeals for the Federal Circuit

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PETITION FOR WRIT OF CERTIORARI

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QUESTIONS PRESENTED FOR REVIEW

1. Are litigants like Petitioner—whose cases have sophisticated, complicated or subtle fact patterns—being deprived of the right to a fair hearing by the growing tendency of overburdened appellate courts to resort to summary disposition in lieu of merited reasoned consideration and analysis?

2. The summary judgment of invalidity and noninfringement of Petitioner's patent claim rested upon impermissible District Court fact findings which: (i) uncritically endorsed as anticipatory under 35 U.S.C. 102(a), (b) or (g) controverted, uncorroborated, self-serving, affidavit averments of prior use or invention of the patented process; and (ii) also pronounced anticipatory under 35 U.S.C. 102(b) a publication as to which the Patent Office had found differences sufficient under 35 U.S.C. § 103 in weight and character to justify reissuing the patent. Can the appellate affirmance of the District Court without opinion be justified on any legally cognizable ground?

3. At oral argument, Respondent's counsel admitted that the alleged prior inventors' work failed to fulfill an essential condition of the patent claim. Should the Court of Appeals accordingly have reversed and remanded for trial or, at the very least, explained its reasoning fully?

THE PARTIES

The names of all parties to the proceeding in the Court of Appeals for the Federal Circuit appear in the caption of this case.

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JURISDICTION

The judgment of the Court of Appeals for the Federal Circuit (*infra*, 1a) was entered August 11, 1995 pursuant to 28 U.S.C. § 1295(a). A timely petition for rehearing was denied (*infra*, 3a) on September 22, 1995. This petition is filed under 28 U.S.C. § 2101(c), and is timely pursuant to this Court's Rule 13(3).

PERTINENT STATUTES AND RULES

The statutory provisions involved are 35 U.S.C. §§ 102(a), 102(b), 102(g), 103, 251, 271 and 282. The rules involved are Federal Rule of Civil Procedure 56 and Federal Circuit Rule 36. In pertinent portion, all appear *infra*, 18a to 27a.

STATEMENT OF THE CASE

Petitioner James Malot is the owner and coinventor of Reissue Patent 33,102 which contains the claim at issue.[1] He is also a professional engineer and the President of Terra Vac Corp., a company which competes with Respondent Weston in the environmental cleanup of soil and groundwater.

Petitioner's reissued patent claim 8 (*infra*, 28a) covers a highly effective process for using a vacuum extraction technique to remove completely (i.e., very often to levels in parts per billion of soil) liquid organic contaminants (such as dry cleaning fluids, paint thinners, liquids in which paint, ink or other pigments are suspended, gasoline and many other industrially used organic liquids) from the part of the earth's subsurface known as its "vadose" (i.e., unsaturated) zone, through which air is able to move laterally. The claim was held invalid and not infringed in an unpublished summary judgment decision (4a to 17a) by the District Court for the Northern District of Georgia which, *inter alia*, made fact findings on controverted issues. This decision also (a) ignored a voluminous conflicting evidentiary record adduced in the U.S. Patent and Trademark Office ("PTO") reissue proceeding which the moving defendant, Respondent Weston,[2] made no effort to address; (b) held anticipatory of the claim under 35 U.S.C. § 102(b) American Petroleum Institute ("API") Report No. 4429 (A226-251) describing a process that the PTO had found, based on Petitioner Malot's evidence, to be sufficiently different in character

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[1] The reissue patent was granted October 12, 1989 to replace Patent 4,660,639 issued April 28, 1987.

Claim 8 (*infra*, 28a) at issue is the only one of the several in the patent which covers completely decontaminating a polluted site and the only one asserted against Weston in the District Court.

[2] The caption shows two corporate defendants, Roy F. Weston, Inc. and Weston Services, Inc., but the two are now merged and will therefore be referred to herein as "Respondent".

from that of Claim 8 to merit reissuing it;[3] (c) ignored Weston's failure to present evidence supporting the affidavits to show that its alleged prior inventor or user affiants had ever completely cleaned up (i.e., "decontaminated" as required by the claim) the soil at any contaminated site; and (d) ignored the deposition testimony of Malot's expert that Weston's accused activity at one site infringed the patent claim, electing to accept instead the affidavit of a Weston employee (as buttressed by an opinion of Weston's expert) that purported to state that Weston had practiced the API process at that site.

The Court of Appeals for the Federal Circuit proceeded under its own Rule 36 (*infra*, 26a-27a) to affirm summarily (*infra*, 1a).

The process covered by the patent claim was originally invented by Malot and his coinventor, Visser, to cope with a serious environmental spill problem at a manufacturing plant of Visser's employer, the Upjohn Company, in Puerto Rico, where massive quantities of carbon tetrachloride from leaky tanks threatened the water supply of a village. The unsaturated vadose zone at the site extended about 300 feet below the surface and tests showed that contaminant had already partly reached the underlying groundwater. Calculations showed 85 to 90 percent of it was still in the vadose soil layer, however (A939-940; A945-946). EPA experts summoned on an emergency basis to the site and others consulted by telephone, could only suggest either excavating the top 25 feet of soil (a useless exercise that would have required closing the plant) or using massive quantities of water to flush the pollutant into the groundwater, from which removal could be effected by a laborious, many years long, "pump and treat" process.[4]

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[3] The "A" citations refer to pages of the two-volume Joint Appendix filed in the Court of Appeals.

[4] This entails pumping the water to the surface, using a distillation or extraction process to remove pollutant, returning the purified water to the subsurface and continuing to repeat this until

After study, the coinventors proposed to use a series of wells equipped with high vacuum pumps capable of exerting a sufficient vacuum through pipe perforations located in the contaminated area (usually near the well bottom) to vaporize all of the liquid contaminants present in the unsaturated soil [5] over a period of continuous treatment and simultaneously to draw air continuously and laterally through the surrounding pore space in the soil to entrain the vapor and replace vapor-laden air. The vacuum pumps also served to exhaust the vapor-laden air continuously to the surface for further treatment (A940; A945-6). The EPA experts expressed disbelief as to the effectiveness of the proposed process, but being unable to suggest a clearly effective alternative, agreed to let them proceed. The proposed process proved effective and ultimately a cleanup of carbon tetrachloride to within less than 10 parts per billion parts of soil was effected within a period of about three years (*Id.*).

After proving the process was effective, on January 4, 1984, Malot and Visser filed a patent application which eventually culminated in issuance of two patents, one of which—Patent 4,660,639—contained the patent claim at issue. Visser's employer, Upjohn, embarked on a licens-

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water tests show the content of pollutant to be below the environmentally tolerable level (usually specified in terms of parts per million or billion of soil). Calculations made at the time showed soil flushing alone would have taken approximately 60 to 75 years because of the low porosity of the vadose zone soil at the site. (A939-940; A945-946)

[5] The "unsaturated" or "vadose" zone of the subsurface varies in thickness from a few feet to hundreds of feet. It is a complex zone where at least air, water, water vapor and one or more types of soil are always present and air is able to move laterally through the pore spaces between soil particles. There are two other zones of interest—the phreatic, or fully saturated zone (containing soil and water only) and the intermediate "capillary fringe" zone, wherein water wicks up between soil particles (so that it forms thin liquid columns which prevent the minimal amounts of air present from flowing laterally). This zone is also deemed a saturated zone because lateral air flow is not possible there.

ing program and in the course thereof, was apprised by a prospective licensee of the existence of API Report 4429 and informed that its content might invalidate the patent. As a result of this and other issues raised by prospective licensees, an application for reissue of the patent under 35 U.S.C. § 251 was filed (A851-4). The applicants invited PTO attention, *inter alia*, to the API Report.

This Report describes a hypothetical process for removing gasoline vapor spontaneously formed above a pool of liquid gasoline "floating on the water table" (A226-251). (The "water table" is the level to which water rises in a well or other shaft. Liquid gasoline, which is lighter than water, tends to collect in a layer atop the water under such circumstances and is colloquially said to "float" thereon.)

Gasoline, unlike carbon tetrachloride and many others of the heavier, higher boiling contaminants to which the process defined by Claim 8 is addressed, is a mixture of many different hydrocarbons ranging from light, low molecular weight molecules that spontaneously vaporize under normal temperature and pressure conditions (e.g., ethane, propane, butane)[6] to heavier ones that do not (e.g., octanes, nonanes, decanes).[7] The API Report suggested that by using suction blowers which exert a slight negative pressure differential [8] at the top of a well shaft,

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[6] These products impart to gasoline its well known characteristic odor. Their vapors pose a danger of explosion and/or asphyxiation when present in air at concentrations above a limit value of about 1 percent.

[7] These more difficultly vaporizable hydrocarbons and the aromatic hydrocarbons (e.g., benzene, toluene) that are often present in gasoline and other common hydrocarbon mixtures (e.g., fuel oil, jet fuel, kerosene) are today deemed particularly hazardous to human health when present in soil and groundwater, but their toxicity was not well-recognized as recently as the 1970's.

[8] Normal air pressure, of one atmosphere, measured barometrically, equals 29.92 inches of mercury or 405 inches of water. The

the easily vaporized fractions of gasoline, which tend to some extent to diffuse upward, could be induced to move through the soil in vapor form and through the perforations in a pipe within a shaft and could then be bled off to the surface. The Report also suggests that bleeding off the contaminated air would cause fresh air to flow in and replace it, thereby causing the spontaneously vaporizable components of gasoline to restore the liquid-vapor equilibrium by further spontaneous vaporization. Since the heavier molecular weight liquid components of gasoline would not be materially affected by the process as envisioned, the Report suggested that, as the gasoline vapor concentration in the air at the top of the shaft diminished and the point was reached where the vapors were "no longer hazardous", the procedure (called "ventilation") could be discontinued, leaving residual, non-spontaneously vaporizable *liquid* hydrocarbons behind. (A244).

The PTO relied upon the API Report as the basis for rejecting all of the reissue application claims (including claim 8) as unpatentable under 35 U.S.C. § 103 (A873-880). The patentees presented expert evidence from Dr. W. Thomas Straw, a professor of hydrogeology, who demonstrated that the API Report actually suggests a process that could not work as described. He showed that vapor situated above "floating" liquid gasoline resting on the water table would be in the capillary fringe, a *saturated* zone through which air cannot flow laterally. He further

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API report suggests the blowers should create a negative pressure differential of 6 inches of water (a little less than half an inch of mercury) at the top of a well shaft (A246). This slight, virtually unnoticeable vacuum exerted at the surface will bleed out spontaneously formed and/or preexisting light weight gasoline vapors, which usually tend to rise upward, even without the negative surface pressure differential, from underground areas relatively near the surface. It cannot fully decontaminate a contaminated vadose zone by drawing air laterally through it and volatilizing *liquid* contaminants present there, as required by Claim 8 (*infra*, 28a).

showed that liquid volatilizable contaminants present in the unsaturated vadose zone are in an entirely different posture from the same contaminants positioned in a saturated zone. This is in part because liquid contaminants in the vadose zone adsorb to soil particles in addition to mixing, to a limited but non-negligible extent, with the water that is always present (which tends to coat soil particles) (A992-1013). Further evidence presented to the PTO showed that Malot's company, Terra Vac, using the claimed process, had fully decontaminated vadose zones containing liquid chlorinated organic contaminants to final contaminant concentrations expressed in parts of 1 and 5 per billion parts of soil, respectively, at two commercial sites (A954-966; A980-987) and had removed gasoline containing a benzene component to a level of 4.5 parts per million of soil (the environmentally acceptable standard in Florida) at a site controlled by the State of Florida (A967-979).[9] The three affiants who presented this evidence each also stated that they were surprised by Terra Vac's success in decontaminating a vadose zone because they were familiar with "ventilation" or venting processes similar to that postulated by the API Report and, in their experience, had found venting ineffective to decontaminate a vadose zone and useful only to remove potentially hazardous vapors of low molecular weight hydrocarbons.[10]

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[9] The Gentry declaration describing this gasoline cleanup filed in the PTO points out that the oil industry paid very little attention to contamination of the unsaturated vadose zone during the 1970's and early 1980's, focussing virtually exclusively upon recovering liquid gasoline (which was salable) from the saturated zone and eliminating potentially explosive, hazardous vapors from buildings and other places where they might cause liability (A971).

[10] Still other sworn evidence submitted to the PTO recounted the story of how the claimed invention was made (A937-950) and presented vignettes about other persons who initially disbelieved the effectiveness of the Claim 8 process to decontaminate a vadose

The PTO thereupon granted Reissue Patent 33,102 containing all of the original claims. Shortly thereafter, Malot acquired all rights in the reissue patent and its companion patent, 4,593,760, also based upon the same Malot-Visser patent application filed January 4, 1984.

In 1992, Malot filed suit against Weston for infringement of Claim 8 of the reissue patent, *inter alia*, at the Georgia World Congress Center ("GWCC") site in Atlanta.

After a period of discovery, Weston filed a motion for summary judgment of invalidity and noninfringement of Claim 8. Invalidity was premised upon affidavits claiming prior invention by others. Of these, the Court of Appeals at oral argument focussed upon Yaniga (A351-359) and Knopik (A128-139). Noninfringement was premised upon the affidavit of a Weston employee, Corbin (A501-504), (who alleged that the process of the API Report was used at GWCC) and an opinion of Hoag, a civil engineering professor, who in pertinent part simply contradicted the Straw declaration of record in the PTO, asserting that the API Report describes a process to be conducted in the vadose (*unsaturated*) zone (A214), and pronounced Weston's "Work Plan" for the project "identical" to the Report's teachings (A247).

Malot opposed and presented counterevidence as well as legal argument (A1285-2449).

With respect to Knopik's claim of prior invention, Malot specifically pointed out material inconsistencies be-

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zone, and expressed surprise when its effectiveness was proved, whom Malot encountered in his business.

In particular, Malot pointed out that an Administrator at the Office of Technology Assessment ("OTA"), after reviewing cleanup data from sites where the process of Claim 8 was performed, pronounced that process "the best innovative technology" he had seen in five years of reviewing allegedly new environmental technologies at the rate of about five per day (A949).

tween the later Knopik affidavit and Knopik's own earlier patents,[11] Knopik's deposition testimony in the case,[12] and documents available from non-Knopik sources.[13] Malot's own affidavit, based on knowledge acquired in his personal day-to-day experience since 1981 in soil and

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[11] Knopik patent 4,183,407 (filed in 1977 and cited by the PTO against Malot but successfully distinguished before Claim 8 was first issued) shows using a 1/32 horsepower fan at the top of a well shaft to bleed off "residual" vapors of gasoline from an unspecified underground zone after completion of siphoning up liquid gasoline *in liquid form* lying atop the water table (A1199). Knopik's subsequently sought patent 4,323,122 specifically states this device is not intended to remove *liquids* from underground zones (A1204). In addition, Knopik's first patent 3,980,138 (A1192-1196) depicts a device for siphoning up liquid gasoline lying on the water table and shows the well casing at the top of the borehole was *un*sealed against air leakage around the well casing—a necessity when *liquid* gasoline recovery is the objective (A1377). Knopik's affidavit alleges he at times sealed the top of the borehole when using this device, thus expediently conforming it to one requirement of claim 8 (A131). No other evidence supports this assertion.

[12] Knopik testified at deposition that he stopped the work of recovering liquid gasoline, in liquid form, from the top of the water table and ceased venting hydrocarbon vapor when an insurance company asked him to, or when the recoverable *liquid* gasoline (in liquid form) reached an insignificant level (A1745; 1755). He also admitted that he could not recall he ever measured contaminant levels remaining in soil after he stopped vapor venting operations (A1761)—yet his affidavit asserts he decontaminated the vadose zone at various sites (A136).

[13] Knopik's affidavit relies on a memo from the Minnesota Pollution Control Agency (A157) to allege that he cleaned up gasoline according to an environmental standard, but fails to acknowledge that the standard relates to stack sampling of *air* with an explosimeter, which, according to the testimony of the former president of Oil Recovery Systems ("ORS"), makes a "coarse" measurement showing whether hydrocarbon vapor in air at the top of a borehole is above or below the lower explosive limit (A1774), but tells nothing about soil decontamination. Knopik's affidavit also alleges he received its Exhibit C (A150) an ORS draft document of unknown authorship "before September 1982" (A135) but does not explain how he fixed the time and has no supporting indicia.

groundwater decontamination, was also presented to show the existence of a controversy with regard to the inability of the Knopik equipment to achieve what Knopik's affidavit says it did and to expose a controversy about the technical meaning of various documents appended to the Knopik affidavit.[14]

With respect to Yaniga (who claimed prior invention and prior use of the Claim 8 process at ORS between 1982 and January 4, 1984 and alleged knowledge of earlier prior uses in Pennsylvania by unidentified others at unidentified sites), his declaration is largely cast in grandiose generalities, with liberal sprinklings of claim language. It does, however, contain two rather specific assertions. The first is that he and Sanders, the former president of ORS, developed an "explosion proof vent system" based on Knopik's patent 4,183,407 which was capable of performing, and did perform, the Claim 8

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[14] Malot's declaration, *inter alia*, shows that Exhibit C to Knopik's affidavit, which speaks of pulling air through ground saturated with hydrocarbon (an impossibility as Straw demonstrated in the PTO), rests upon an ORS fan said in Exhibit C to have a capacity to draw air at 1100-1600 cubic feet per minute. The efficiency curve of this fan, produced from ORS files (Malot Declaration Exhibit A; A1402), shows it could not have exerted sufficient vacuum at the top of a well to pull air through the unsaturated vadose zone (A1372-1373). Malot's declaration also shows the 1/32 horsepower fan of Knopik patent 4,183,407 likewise could not have done so (A1373-1374). Malot's affidavit also shows the devices of Knopik patents 3,980,138 and 4,323,122—both designed for siphoning liquid gasoline in liquid form from the top of the water table—each operated to vaporize part of that liquid internally and explains that it is more reasonable to construe Knopik Exhibit G's calculated figures for "vaporization" in gallons as pertaining to this internal vaporization problem and *not* to contaminant vaporized from the vadose zone, especially in view of Exhibit G's reference to gasoline *layer* thickness measurements, which refer to the thickness of a layer of liquid gasoline above the water table in a well (A1379-80).

[15] Yaniga purported to have disseminated advertising material about this system at pre-January 4, 1984 meetings and conferences and referred to Exhibits A-D (A360-371) of his declaration as

process (A356-357).[15] The second is a reference to a Coventry, Rhode Island site where Yaniga says the Claim 8 process was performed before the January 4, 1984 filing date to which Malot's patent is entitled (A355-356). Malot countered these assertions by pointing to a significant inconsistency in the various documents produced by ORS relating to the "explosion proof vent system."[16] and to discrepancies between the Yaniga declaration and the final report on the Coventry, Rhode Island project.[17]

As to both Knopik's and Yaniga's affidavit assertions, Malot also relied on this Court's decision in *Washburn & Moen Mfg. Co. v. Beat'Em All Barbed Wire Co.*, 143 U.S. 275, 284-85 (1892), requiring both specific detail about prior use or invention and independent corroboration to establish proof that is "clear, satisfactory and beyond a reasonable doubt" (143 U.S. at 282) that the claimed prior work truly ensued.

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examples. But Exhibits A (A360), B (A361) and D (A365-371) are clearly internal drafts, authorship and dates of which are unknown. Exhibit C (A362-364) includes a brochure but the only proven date of dissemination is October 30, 1987 (A362), more than three years after Malot's application filing date.

[16] The Malot declaration, as noted above, shows that the 1100-1600 cubic feet per minute fan of the "explosion proof vent system" later called the "SVS" (A363-364), according to the document which is its Exhibit A, clearly could not have drawn a negative pressure differential capable of pulling air laterally through a contaminated vadose zone and volatilizing contaminants present there (A1372-1373).

[17] Malot declaration Exhibit D is the "final report" of this project. It states that the operations performed at Coventry were siphoning up *liquid* gasoline from the top of the water table and venting of potentially dangerous hydrocarbon vapors from basements of nearby cottages. This report also refers to the pickup by the water in the saturated zone of additional gasoline contaminant (from soil previously in the unsaturated vadose zone) during a rainy spring period when the water table rose significantly above its normal level (A1405-1414). It thus rebuts the Yaniga assertion that the unsaturated vadose zone at this site was decontaminated of liquid gasoline as Claim 8 requires.

The noninfringement affidavit of Weston's employee Corbin, as supported by Hoag's opinion affidavit, is countered by the opinion of Malot's expert Feenstra that the Weston GWCC work did use the Claim 8 process (A1726-1731; A2580). It is also countered by Malot's declaration (A1397) and by a letter obtained from the Georgia Department of Natural Resources (A2408-2409) showing cleanup 'in the vadose zone" to agency specifications. The contaminants at the site were chlorinated VOCs,[18] (A303) *not gasoline*, and the vacuum devices placed at the top of the various boreholes were capable of drawing a vacuum of 12 inches of mercury (nearly half an atmosphere) (A301). The opinion of Hoag that the process Weston used was the one postulated in the API Report is contrary to the Straw affidavit and inconsistent with the Elliott, Komoski and Gentry declarations in the reissue file history.

In the reply brief supporting summary judgment (A2454-2477), Weston argued that its affidavits and declarations must be fully accepted because each is allegedly premised on personal knowledge, and attacked the Malot declaration (A1367-1401) as inadmissible because it is not expressly so posited (though individual paragraphs clearly are) and it contains opinions (A2454-2477). Contradictions of and inconsistencies with the affiants' own documents and with the reissue file history evidence were ignored.

The District Court decision, issued after an oral hearing remarkable for the failure of the district judge to pose one question or even comment about any aspect of the motion (A2517-2571), ignored Malot's position in all respects and also ignored the evidence in the reissue file history to grant the motion (*infra*, 4a to 17a).

Malot filed a timely appeal to the Court of Appeals for the Federal Circuit. After full briefing, an oral argument was held on August 7, 1995.

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[18] I.e., volatile organic compounds (or contaminants).

At that argument, the appellate panel made clear that if it were satisfied that the Knopik affidavit and Yaniga declaration are sufficiently corroborated, it might proceed under the Court's Rule 36 (*infra*, 26a) to affirm the District Court summarily.[19]

Weston's counsel asserted that Exhibit G to the Knopik affidavit (A167-185), Knopik Patent 3,980,138 (A1192-1196), the ORS "brochures" (A360-371)[20] and the Minnesota Pollution Control Agency memorandum (Exhibit E to the Knopik affidavit, A157) are corroborating documents and proceeded to make arguments concerning each that are in conflict with facts in the record.[21] In the course

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[19] A transcript of the oral argument tape (hereinafter cited as "Transcript"), prepared by a certified court reporter, has been lodged with the Clerk and served upon the Respondent's counsel. This transcript makes no reference to individual appellate panel members by name but attributes to "The Court" all statements by any of the three members. The statement of the Court of Appeals referred to in text appears at page 24 thereof.

[20] Of these, only Exhibit C to Yaniga's declaration (A362-4) clearly even includes a "brochure".

[21] One can look vainly through these documents to find an indication that *anyone*, including Knopik or Yaniga, actually decontaminated a vadose zone as Claim 8 suggests.

Respondent's counsel argued (Transcript pp. 15-16) that since both Exhibit G to Knopik's affidavit and his patent 3,980,138 show removing liquid *and* vapors, the vapors must have come from the vadose zone—but this is both inaccurate and a *non sequitur*. Vapors of low molecular weight gasoline components may exist, e.g., in the capillary fringe, from whence they would be exhausted first by any device designed to siphon up liquid gasoline (as the device of patent 3,980,138 was). Moreover, the propensity of the device of this patent to vaporize appreciable liquid gasoline internally after collecting it, acknowledged in later Knopik patent 4,323,122 (A1204) is ignored in this argument.

The Weston argument at Transcript pp. 17-18 (that the ORS brochure statement that "[t]he SVS [a later name for the explosion-proof vent system] works by pulling air through ground saturated with hydrocarbon" means a "saturated" vadose zone (A364) is inherently unbelievable. Yaniga, with two degrees in geology

of doing so, he made a key admission. He said the Minnesota Pollution Control Agency document

> "is saying . . . that when you get to the point that you no longer have detectable hydrocarbons . . . . [you're] no longer causing evaporation to go on down there.
>
> Why? Probably because what you have left are the fractions of the contaminant, they're not volatile, which are what you're going to have left if you practice this [patented] process also." [22]

In fact, the mere venting of spontaneously volatilized low molecular weight gasoline components *does* leave "fractions of the liquid contaminant" in the soil as Weston counsel acknowledged. But applying "a vacuum through said perforate lower portion of said well casing" that is "effective to draw air through said contaminated vadose zone and to volatilize liquid contaminant . . . present in said . . . zone" (*infra*, 28a), as required by Claim 8 *does not do so*. The Elliott, Komoski and Gentry affidavits in the PTO reissue file are eloquent testimony that no such residues are left by the patented process.

(A351), cannot be presumed to have permitted ORS to make a basic geological error by calling the *unsaturated* zone "saturated".

As to Exhibit E of the Knopik affidavit, see note 22, *infra*.

[22] See Transcript p. 20. As already pointed out, the explosimeter test of *air* is only a coarse measure. As Sanders, the former president of ORS testified, the explosimeter "has a lower explosive limit/upper explosive limit" (A174) which is "between 1 and 7 percent in air" for gasoline. As he further admitted, a zero explosimeter reading *won't* measure levels as low as "parts per million or very, very low concentrations" (*Id.*). Clearly, *even if, arguendo*, concentrations of lower molecular weight hydrocarbons in air *could* tell one anything about the overall concentration of higher molecular weight gasoline components remaining in soil, a residual contaminant concentration in soil of even, e.g., ½ percent (i.e., one part per 200 parts of soil), would represent substantial contamination—and that soil could surely benefit from being decontaminated by the process fo Claim 8.

The Court of Appeals entered its judgment of summary affirmance under its Rule 36 (*infra*, 1a) a mere four days after oral argument.

Malot's timely petition for rehearing, raising, *inter alia*, the infirmities of Weston's alleged corroboration for the Knopik and Yaniga affidavits and the significance of Weston's admission of incomplete cleanup, was denied on September 22, 1995 (*infra*, 3a).

SUMMARY OF ARGUMENT

By resorting to summary affirmance under its Rule 36 instead of taking the care and time needed to understand the intricacies of the facts in this case, the Federal Circuit ran roughshod over well-entrenched legal principles to which it routinely pays lip service. It also signaled its approval of the District Court's subversion of the same principles. The rule of law itself and the reliance of Petitioner and other litigants upon the same legal principles thereby stand abused.

REASONS WHY THE WRIT SHOULD BE GRANTED

I. AFFIRMANCE WITHOUT OPINION—AN ABDICATION OF APPELLATE RESPONSIBILITY

A recent law review article reports that "[t]he courts of appeals issued more than 6,200 summary dispositions in 1993"[23], over 5,900 of which were summary affirmances. It notes that the rules governing these dispositions vary among the circuits.

The Federal Circuit's Rule 36 (*infra*, 26a) contains its criteria for entry of a judgment of affirmance without opinion. Inasmuch as the District Court decision in this case (*infra*, 4a to 17a) granted a summary judgment

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[23] Dragich, "Will The Federal Courts Of Appeal Perish If They Publish? Or Does The Declining Use Of Opinions To Explain And Justify Judicial Decisions Pose A Greater Threat?" 44 *The American U. Law Rev.* 758, 763 (1995).

motion, one must infer the appellate panel deemed that summary judgment was supported by the record, notwithstanding the manifest inconsistencies and contradictions that record contains.

The Federal Circuit pays consistent lip service to the proposition that grants of summary judgment are reviewed *de novo*.[24] Yet Petitioner's experience in this case suggests that its words are divorced from its actions when an appreciation of the genuine issues of material fact that are present cannot be reached swiftly and easily. Where, as here, arriving at such appreciation necessitates a tolerance for attention to complex detail, plus the patience to assess the effects of a myriad of inconsistent, contradictory and discrepant scientific and technical niceties, the review is cursory at best.[25]

Over the years since the federal appellate courts commenced the practice of relegating many of their opinions to the "unpublished" category, legal scholars have engaged in an ongoing debate about whether, how, and to what extent the existence of these unpublished appellate opinions is harmful to the integrity of the legal system. Today's level of resort in appellate courts to summary disposition is susceptible to all the same criticisms that attend the proliferation of unpublished opinions. Indeed, summary dispositions may readily be viewed as a subset (albeit one that has the harshest impacts, particularly

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[24] *Conroy v. Reebok Int'l.*, 14 F.3d 1570, 1575 (Fed. Cir. 1994); *International Visual Corp. v. Crown Metal Mfg. Co.*, 991 F.2d 768, 770 (Fed. Cir. 1993); *Paragon Podiatry Lab., Inc. v. KLM Labs.*, 984 F.2d 1182, 1190 (Fed. Cir. 1993); *Vas-Cath, Inc. v. Mahurkar*, 935 F.2d 1555, 1560 (Fed. Cir. 1991).

[25] The Transcript reveals an alarming lack of acquaintance by the appellate panel with what occurred in the District Court. The panel, for example, attributed to the district judge at the oral argument comments and questions that were simply *not* made. See, e.g., Transcript pp. 3, 9-10, 23-24 and compare them to the district judge's opaque and unrelenting silence throughout the oral argument (A2517-2571).

upon litigants and the rule of law) of the unpublished opinion controversy.

A decade ago, Judge Wald, writing separately in *National Classification Committee v. United States,* 765 F.2d 164, 173, n. 2 (D.C. Cir. 1985) cataloged

> less . . . soundly reasoned opinions, reduce[d] judicial accountability, increase[d] . . . risk of nonuniformity; allow[ing] difficult issues to be swept under the carpet and result[ing] in a body of "secret law" practically inaccessible to many lawyers

as among the pernicious consequences then recognized by many lawyers to attend upon the proliferation of unpublished opinions. It requires neither special insight nor creative imagination to perceive that where summary affirmance is increasingly resorted to, there can be no yardstick for the soundness of the wholly unexpressed reasoning, and no index for judicial accountability or even for uniformity. Moreover, difficult issues can readily be buried and the potential for bodies of secret law—so secret that they are harbored and nurtured independently, solely in the separate minds of individual judges—becomes exponentially magnified. Even short reflection upon the disparate nature of the likely separate bodies of secret law so generated conjures up an ominous—even nightmarish—vision of a form of legal anarchy where lawyers lack any reasonably predictable means for determining how to advise clients in situations that are not governed by black letter statutory language and judges are free to determine cases on the basis of whimsy, emotion or even chance.

Only last week in a *Wall Street Journal* "op-ed" piece [26] deploring the expanding proliferation of both unpublished opinions and summary determinations, a lawyer warned of appellate courts' "temptation . . . to bury shoddy rea-

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[26] Kester, J.G., "Appeals Courts Keep More And More Opinions Secret", *The Wall Street Journal,* December 13, 1995, p. A15.

soning or to tailor results to particular parties", adding that

> Supreme Court Justice Owen Roberts worried half a century ago that if precedent can be routinely ignored, the law becomes "a restricted railroad ticket, good for this day and train only." We expect our courts to build on prior decisions and to explain why not if they don't. If they select some decisions to be secret . . . then judges themselves undermine the rule of law.

In this case, whether unintentionally (as is presumed) or otherwise, the Federal Circuit panel exhibited no concern about undermining the rule of law. Zealously pursuing the simplest avenue for disposing of this case, the panel blithely ignored the legal errors committed by the District Court, as well as its own responsibility to exercise supervisory authority.

II. THE BARBED WIRE PATENT CASE, CORROBORATION OF PRIOR USE OR INVENTION AND "PERSONAL KNOWLEDGE" AFFIDAVITS

More than a century ago, in reversing a lower court's finding that a patent was anticipated by the prior public use and/or invention of a third party, this Court in *Washburn & Moen Mfg. Co. v. Beat' Em All Barbed-Wire Co.*, 143 U.S. 275, 284-5 (1892) laid down the rule that such an anticipation must be proved by evidence that is "clear, satisfactory and beyond a reasonable doubt".

The District Court in this case did not deign to explain the basis upon which it wholeheartedly espoused a single affidavit from Knopik (A128-139), a single declaration from Yaniga (A351-359) and one declaration from Farmer (A186-194) as the respective bases for its findings that each of Knopik, Oil Recovery Systems and Exxon [27] (*infra*, 5a to 8a) was a prior user (or inven-

[27] The District Court's finding regarding Shell (*infra*, 8a) rests solely on two Shell documents (A1064-1068), one incomplete, unsupported by written or oral testimony from *any* source.

tor) of the patented process. In each instance, the story told in the affidavit or declaration rested on naked memory and was not borne out, either by testimony from other witnesses who saw the process being performed, or by unambiguous contemporaneous documents.

Inescapably, the testimony presented in these affidavits and declarations is of the *same*

> unsatisfactory character . . ., arising from the forgetfulness of witnesses, their liability to mistakes, their proneness to recollect things as the party calling them would have them recollect them, aside from the temptation to actual perjury,[28]

that this Court recognized in *Washburn & Moen.* As it said,

> Witnesses whose memories are prodded by the eagerness of interested parties to elicit testimony favorable to themselves are not usually to be depended upon for accurate information. . . . Indeed, the frequency with which testimony is tortured, or fabricated outright, to build up the defense of a prior use of the thing patented, goes far to justify the popular impression that the inventor may be treated as the lawful prey of the infringer.[29]

The Federal Circuit, as recently as *Price v. Symsek,* 988 F.2d 1187 (Fed. Cir. 1993), acknowledged the rule of law

> "that an inventor's testimony respecting the facts surrounding a claim of . . . priority of invention cannot standing alone rise to the level of clear and convincing proof. Throughout the history of the determination of patent rights, oral testimony by an alleged inventor asserting priority over a patentee's rights is

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[28] 143 U.S. 275, 284. The EPA Semi-Annual Status Reports for the last few years show that the Claim 8 process of achieving decontamination is the most widely used innovative cleanup technology and thereby provide the very motives for preying on Malot that this Court perceived in 1892.

[29] *Id.* at 284-5.

> regarded with skepticism . . . [citing cases from this Court including *Washburn & Moen* (denominated *The Barbed Wire Patent*)].

The panel in this case had no compunction about taking *written* testimony, all-too-obviously cast in the language of Claim 8, as proof of prior use in this case. The slightest reflection, however, should have suggested such testimony is probably less reliable than—and should hence be treated, if anything, even more skeptically under *Washburn & Moen* than—oral testimony. The panel went so far as to say that if it

> "were to come to the conclusion that the Knopik and Yaniga declarations are fully corroborated and what they say is true, . . . if you all understand from our perspective if that's how we ruled on corroboration, the case might not even need to be delayed by the preparation of an opinion . . ., for example, Rule 36 . . . ."[30]

Petitioner has pointed out above (pp. 13-14) the reasons why the alleged corroborating documents of Knopik and Yaniga are deficient and cannot clearly and unambiguously support as "true" the sweeping generalities of the two affidavits.

Respondent's counsel at oral argument effectively admitted that *neither* Knopik nor Yaniga succeeded in decontaminating a vadose zone, as required by Claim 8, when he acknowledged that Knopik left "fractions of the contaminant"[31] behind after conducting his process and then asserted that everyone who practices the Claim 8 process does so. The panel, however, was not troubled by this flat inconsistency with Petitioner's evidence (in the reissue file history) demonstrating decontamination to a level of a few parts per billion of soil using the process of Claim 8. Indeed, the celerity of the Rule 36 affirmance and the later denial of rehearing eloquently so testify.

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[30] Transcript, p. 24.

[31] Transcript, p. 20.

III. THE FEDERAL CIRCUIT'S RESORT TO RULE 36 EFFECTIVELY BURIES THE DISTRICT COURT'S LEGAL ERRORS AS WELL AS ITS OWN

The Federal Circuit's resort to Rule 36 in this case clearly allowed it to take the path of least resistance in performing its own appellate function. In addition, the Federal Circuit thereby shucked off the demanding task included among the duties of all appellate courts, of exercising a necessary supervisory function by correcting manifest district court error in an instructive manner.

The District Court here not only made fact findings based on affidavits; to do so, it apparently dismissed the affidavits and declarations in the PTO reissue file as unreliable or incredible—since otherwise it would have been forced to face the evidentiary conflicts between them and Weston's affidavits.[32]

The District Court thereby effectively converted this case into one of trial by affidavit.

By resorting to Rule 36, the Federal Circuit not only cloaked this aberrant procedure in secrecy; it sent a signal to the District Court that the procedure is condoned in patent cases.

Similar signals of condonation attend the District Court's failure to examine whether Weston had discharged its evidentiary burden under Federal Civil Rule 56 to

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[32] For example, Professor Straw's evidence, as an expert in hydrogeology, is that the API Report postulates conducting a process in the *saturated* capillary fringe (of drawing air through that zone) which could not work—while Hoag, an expert in civil engineering, swore that the API Report postulates drawing air through the *unsaturated* vadose zone. As another example, each of Komoski, Elliott and Gentry testified by declaration in the PTO that venting (with a fan, such as the API Report describes, capable of producing a vacuum of about one-half inch of mercury at the top of a well shaft) is incapable of decontaminating a vadose zone; each of Knopik and Yaniga, in his declaration, claims that he *did* thus decontaminate a vadose zone.

prove the absence of a genuine issue of material fact, its failure to view the evidence in the light most favorable to Petitioner, the non-moving party, and its failure to draw all reasonable inferences in Petitioner's favor. Yet each of these is seemingly required by the case law from both this Court—e.g., *United States v. Diebold, Inc.*, 369 U.S. 654, 655 (1962); *Adickes v. S.H. Kress and Co.*, 398 U.S. 144, 156 (1970)—and the Federal Circuit itself, e.g. *SRI Int'l. v. Matsushita Elec. Corp.*, 775 F.2d 1107, 1116 (Fed. Cir. 1985).

The Federal Circuit's abdication of the responsibility to perform meaningful and informative appellate review of the District Court decision in this case can be expected to have a snowball effect in at least the District Court for the Northern District of Georgia, absent this Court's intervention. The position of the Federal Circuit, as the sole appellate arbiter in patent cases, necessarily imparts, to every similarly motivated Rule 36 affirmance that court may deliver, equally far-reaching and unfortunate consequences.

CONCLUSION

Favorable consideration and grant of certiorari in this case are respectfully requested.

Respectfully submitted,

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APPENDIX

APPENDIX

[Filed Aug. 11, 1995]

UNITED STATES COURT OF APPEALS
FOR THE FEDERAL CIRCUIT

94-1446

JAMES J. MALOT,
Plaintiff-Appellant,
v.

ROY F. WESTON, INC. and
WESTON SERVICES, INC.,
Defendants-Appellees.

On Appeal from the United States District Court
Northern District of Georgia (Atlanta)
in Case No(s). 1:92-CV-628

JUDGMENT

This CAUSE having been heard and considered, it is ORDERED and ADJUDGED:

Per Curiam: (MAYER, CLEVENGER and RADER, *Circuit Judges*):

AFFIRMED, *See* Fed. Cir. R. 36.

DATED Aug. 11, 1995

ENTERED BY ORDER OF THE COURT

/s/ Francis X. Gindhart
Clerk

ISSUED AS A MANDATE: October 10, 1995

UNITED STATES COURT OF APPEALS
FOR THE FEDERAL CIRCUIT

ORDER

A combined petition for rehearing and suggestion for rehearing in banc having been filed by the APPELLANT, and the petition for rehearing having been referred to the panel that heard the appeal, and thereafter the suggestion for rehearing in banc having been referred to the circuit judges who are in regular active service,

UPON CONSIDERATION THEREOF, it is

ORDERED that the petition for rehearing be, and the same hereby is, DENIED and it is further

ORDERED that the suggestion for rehearing in banc be, and the same hereby is, DECLINED.

The mandate of the court will issue on September 29, 1995.

FOR THE COURT,
FRANCIS X. GINDHART,
Clerk

By /s/ Diane M. Frye
DIANE M. FRYE
Chief Deputy Clerk

Dated: September 22, 1995

cc: Mary Helen Sears
William H. Boice

Malot v Weston Inc, 94-1446

(Dct—1:92-CV-628)

[Filed May 16, 1994]

IN THE UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF GEORGIA
ATLANTA DIVISION

Civil Action No. 1:92-cv-628-RLV

JAMES J. MALOT,

Plaintiff,

vs.

ROY F. WESTON, INC. and
WESTON SERVICES, INC.,

Defendants.

ORDER

This patent infringement case is before the court on the defendants' motion for summary judgment as to patent invalidity and non-infringement and the plaintiff's motion to compel discovery. The court has considered the briefs of the parties and heard argument of counsel at a hearing conducted on March 21, 1994.

I. INTRODUCTION

This case involves technology for removing volatile liquid contaiminants, such as gasoline and other kinds of fuel, from the ground. The process involves applying a vacuum to the top of one or more well casings to the zone of the earth to be cleaned; the vacuum must be capable of drawing air through that zone and of converting the liquid contaminants to a gaseous form so that they may be expelled through the tops of the wells.

The plaintiff contends that he and a co-inventor developed a process for removing volatile liquid contaminants from the soil and applied for patent on this process. Pa-

tents were issued, but Malot and his co-inventor filed a reissue application in order to correct presumed deficiencies that might affect the validity of the patents already issued. The patent office then granted Reissue Patent 33,102 [hereinafter referred to as the "102 patent"], which provides the basis for this litigation. A patent may consist of several "claims," and it is only Claim 8 of the instant patent that is at issue in this litigation.

The defendants contend that the invention described in Claim 8 is not novel and is obvious. Because of this, the defendants argue that the patent is invalid. In the alternative, the defendants contend that if Claim 8 of the patent is construed narrowly in order to escape invalidity in light of the prior art, the defendants have not infringed on the patent because the process they used is different.

II. FACTUAL BACKGROUND

In 1973, Duane Knopik learned that one of the underground gasoline storage tanks at his service station in Forest Lake, Minnesota, was leaking. Gasoline from the tank had percolated through the soil and into the basement of a building more than a block away. Knopik sought advice as to how to clean up the leaked gasoline, but neither the local fire department nor the Minnesota Pollution Control Agency offered a workable solution to the problem.

Knopik then designed and built his own device for use in decontaminating the soil. This device included a conduit with an elongated, perforated filter attached to its lower end. This conduit was placed into a well bored into the contaminated soil. The upper end of the well around the conduit was sealed with materials to prevent air from the surface of the ground being drawn down into the shaft, into the filter, and up through the conduit. When strong suction was applied to the conduit, air, liquids, and vapors in the soil were drawn through the perforated filter and up to the surface of the ground.

The air drawn through the soil volatilized, or vaporized, some of the liquid gasoline in the soil before it was sucked into the vertical conduit.

While using his decontamination system, Knopik learned that it was effective in recovering liquid contaminants in the vadose zone above the water table, as well as recovering contaminants floating on the water table.[1] Because of the apparent success of this system in decontaminating the soil at his service station, Knopik began receiving requests to use the system to remove volatile liquid contaminants from other spill sites. By 1975, Knopik was being contacted by various entities which were interested in his remediation, or decontamination, system.

As Knopik's business expanded, he developed other variations of his soil remediation system, including a soil venting system using an exhaust fan to draw air through the soil into a radial array of perforated pipes embedded in the soil. This system was used to remove contaminant vapors and also to volatilize liquid contaminants in the vadose zone. By September 1982, Knopik had decontaminated approximately 50 sites in the Midwest and had approximately 100 installations operating throughout the United States.

Knopik applied for and received various patents covering his inventions. *See, e.g.*, Patent No. 3,980,138 issued on September 14, 1976; Patent No. 4,183,407, issued on January 15, 1980; and Patent No. 4,828,122, issued on April 6, 1982.

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[1] The vadose zone is one of three subsurface zones of the earth's crust. The vadose zone is the upper of the three subsurface zones and contains air in addition to water and soil particles. The lowest of the three subsurface zones is the "phreatic zone," also known as the water table; there is no air present in this zone. Between these two zones is the "capillary fringe," where capillary forces act to draw up and hold thin columns of water in the pore spaces between soil particles.

In 1977, another company, Oil Recovery Systems, began its business of developing equipment and techniques for ground water decontamination. Originally, the company's principal product was a water pump system which depressed the water table around a recovery well, causing oil or water to flow into the well. However, after consultations with Duane Knopik, ORS designed a system using a fan to draw air and vapors of hydrocarbon contaminants through the soil above the water table into perforated collection pipes and up to the surface. This system was tested in November 1981 to determine the air flow that would be generated by the system.

In December 1981, ORS prepared a brochure describing its "Explosion Proof Vent System." That description stated, in part:

> The EPVS works simply by pulling air through ground saturated with hydrocarbon. This causes both the free liquid and that trapped by soil to vaporize. These vapors get carried through the EPVS to the outside atmosphere where they are readily disbursed. . . .
>
> Pulling air through the ground results in hydrocarbon liquid vaporizing and then being carried through the Vent System. . . .

ORS offered the Vent System for sale as a new product by March 1982. In April 1982, ORS licensed from Duane Knopik the right to make, use, and sell an "Exhaust System and Process for Removing Underground Contaminant Vapors."

In the late 1970s and early 1980s, at least two other entities developed similar systems for removing volatile liquid contaminants from soil by using vacuum to draw air through the soil. In 1979, Exxon Company, USA, developed a process utilizing vent wells into which vertical PVC pipes were inserted. These pipes had perforated lower portions surrounded by a permeable gravel pack

and utilized fans to create a vacuum to draw air through the soil to volatilize the liquid contaminants. Additionally, Shell Oil Company developed a similar system, also utilizing vacuum to draw air through the soil.

In 1982, Upjohn Company experienced a carbon tetrachloride leak from one of its underground storage tanks in Barceloneta, Puerto Rico. Upjohn contracted with a a Puerto Rican geotechnical engineering company for soil drilling and sampling; this company, in turn, contacted Soil and Materials Engineers and retained that firm as a consultant to provide soil testing and evaluation services. James Malot, of Soil and Materials Engineers, first met Melvin Visser, an Upjohn chemical engineer, who was present at the Barceloneta site to coordinate the response to the chemical spill, in September 1982.

After considering and rejecting several clean up methods, Visser and Malot decided that they would attempt to remove the liquid contaminants through the use of a vacuum extraction method. At this time, neither Visser nor Malot was aware of the work done by Duane Knopik, ORS, Exxon, or Shell.

Bore holes were dug, and slotted pipes were fitted the holes. Sand was placed in the space between the slotted portion of the pipe and the inside surface of the hole. The space between the pipe and the hole was then sealed to prevent air from being pulled downward along the outer surface of the pipe. Vacuum was then applied in a two-step process. First, a very high vacuum pump was connected to the pilot extraction well, and a vacuum applied. As the vacuum pump operated, the vacuum became more measurable in monitoring wells at greater distances from the pilot well. Concentrations of vapors from the pilot well began to increase over this period of time. After the flow of air through the soil had begun, the high vacuum pump was replaced by a lower vacuum blower which also served to extract contaminants from the soil but at greater electrical efficiency.

Because of the success of the operation, Malot and Visser decided to patent the process they had utilized and, as a consequence, filed an initial patent application (serial number 567,972, on January 4, 1984). However, on May 9, 1984, the patent office rejected the claims cited in the patent application. Referring to the Knopik patent, the patent office stated:

> Knopik discloses a process for recovering organic liquids from underground areas in which a well is completed above the water table and put on a vacuum to recover the fluids on the surface where said fluids are condensed, separated and treated.

In response, the co-inventors rewrote the claims to point out the purported differences between their process and that utilized in Knopik patent 4,323,122.

> A fundamental difference between Applicants' invention and Knopik is that Knopik withdraws liquid contaminants from the liquid layer that flows on the water table and is below the vadose zone, whereas Applicants' volatilize the contaminant to cause it to pass off in vapor form and the contaminant is removed from the vadose zone rather than from a layer of liquid that floats on the ground water. Knopik does not teach or suggest volatilizing the contaminant present in the vadose zone by means of a high vacuum.

Based upon this representation, the patent office, on November 27, 1984, provisionally allowed three claims of the patent application. The patent office then issued a "final" rejection on July 11, 1985, rejecting all but the three provisionally allowed claims. Following another attempt at reconsideration by Malot and Visser, the patent office eventually issued patent no. 4,593,760 and patent no. 4,660,639, which contains claim 8, which is the subject of the instant motion for summary judgment.

Shortly after these patents were issued, questions as to their validity were raised based upon prior publications.

Because of these questions, Malot and Visser availed themselves of established procedures that permit a patent owner to go back to the Patent Office and obtain its assessment of the patent's ability of the issued patent claims over a newly found published references.

The publications were American Petroleum Institute Report No. 4429, a 1982 article by Thornton, et al., in a Journal of Environmental Science and Health, and an excerpt from a 1982 EPA handbook.

After examining the publications and the argument of counsel for Malot and Visser, the Patent Examiner confirmed the claims of the issued patents, stating in part as follows:

> It is clear from the record that one of ordinary skill in the art of ground contamination would have a certain level of expertise in geology or hydrogeology. The vadose zone would therefore be understood as being the unsaturated zone lying above both the water table and the "capillary fringe" zone. With this understanding of the vadose zone, in regard to claims 1-8, the prior art and affidavits of record support the conclusion that it was not known at the time the invention was made to remove volatile liquid contaminant from a vadose zone by applying a vacuum effective to cause vaporization of a substantial quantity of a liquid contaminant within the vadose zone as specifically recited in the respective claims. Although vapor removal by vacuum systems was known, the record supports the conclusion that the prior art failed to appreciate that such systems could be used in the specifically claimed manner to remove volatile liquid contaminant from the vadose zone.

This "reason" was given despite the fact that the Patent Examiner had previously, on November 18, 1988, reached a different conclusion:

> The API publication number 4429 . . . discloses on page 14 a set-up for a process of removing gasoline . . . from a subterranean zone having a water table, a layer of liquid residual gasoline on top of the water table in the vadose zone, and gasoline vapors above the residual liquid gasoline. By definition, the vadose zone lies above the water table and therefore the residual liquid gasoline the figure on page 14 of API 4429 is the [*sic*] fact in the vadose zone. . . . Figure labels and exhaust fan on top of the well to the right which will cause a pressure differential or vacuum within the conduit and in turn will induce vapor flow from the vadose zone into the conduit. This removal of gasoline vapor actually increase volatilization and cause[s] a volatilization of the liquid gasoline layer by changing the equilibrium of the vapor/liquid interface. This changing of the equilibrium is discussed on page 5 of API 4429 and teaches that as the vapor is removed faster or in larger quantities, it causes a greater vaporization of the liquid at the vapor/liquid interface. Since both the vapor and the liquid gasoline are in the vadose zone above the water table, the vacuum or exhaust means in fact causes a volatilization of the liquid gasoline in the vadose zone by more rapidly removing the gasoline vapors and changing the gasoline vapors/liquid equilibrium.
>
> * * * *
>
> In regard to the vacuum of patent '639 allegedly being different from the vacuum of API 4429, the patent '639 states on column 2, lines 38-43, that what is contemplated is a "relative pressure drop". Both the patent '639 and API 4429 use similar "vacuum" sources, i.e. a blower fan, to cause the necessary air flow by the created pressure differential.

It would appear that the reason for the change in the Patent Examiner's conclusions is that Malot and Visser persuaded him that their process did not use a vacuum

to remove vapors, allow more vapors to form and then remove those vapors but, instead, they argued that their process actually created the vapors to be removed through the suction process. *See* Statement pursuant to 37 C.F.R. 1.56.

III. LEGAL DISCUSSION

A. Motion to Compel Discovery

The plaintiff has filed a motion to compel the defendants to produce documents to support causes of action for infringement of claims other than claim 8 under the patent. The defendants have responded that they have submitted all relevant documents and that the plaintiff's complaint is simply that too many documents were produced and that they were produced in a way that the plaintiff has difficulty determining whether there has been infringement claims other than claim 8. Because the defendants have represented to this court that they have made a thorough search of all their files relating in any way to soil contamination remediation, this court will not require that they do anything further. The court has carefully considered the briefs of the parties and finds no basis for granting the motion to compel.[2]

B. Patent Invalidity and Infringement

A patent is invalid if the patented process or invention has been "anticipated" by prior art. To anticipate an invention, the prior art must disclose every element of the claim limitations and must be contained in a single prior art reference. Verdegaal Brothers, Inc. v. Union Oil Company of California, 814 F.2d 628 (Fed. Cir. 1987). However, the law of anticipation "does not require that

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[2] The court notes that in its order dated February 15, 1994, the court granted the plaintiff's motion for oral argument on its motion to compel but that at the hearing conducted on March 21, 1994, pursuant to that order, the plaintiff raised no issues and made no argument regarding his motion to compel.

the reference 'teach' what the subject patent teaches. Assuming that a reference is properly 'prior art,' it is only necessary that the claims under attack, as construed by the court, 'read on' something disclosed in the reference, i.e., all limitations of the claim are found in the reference, or 'fully met' by it." Kalman v. Kimberly-Clark Corp., 713 F.2d 760, 772 (Fed. Cir. 1983). Moreover, an anticipatory reference "need not duplicate word for word what is in the claims. Anticipation can occur when a claimed limitation is 'inherent' or otherwise implicit in the relevant reference." Standard Havens Products, Inc. v. Gencor Industries, Inc., 753 F.2d 1360, 1369 (Fed. Cir. 1991). Also, it is not necessary that the prior art reference recognize a particular property of the process if the property was inherently possessed by the earlier process. *Verdegaal Brothers,* 814 F.2d at 633.

Claim 8 of the patent in suit reads as follows:

> A process for decontaminating an underground vadose zone which is located above the water table and is contaminated with a volatile contaminant which is percolating downwardly through said vadose zone, which comprises:
>
> establishing a vacuum extraction well comprising a well casing having a perforate lower portion located in the contaminated vadose zone and above the water table so that fluids can flow from said contaminated vadose zone into said perforate lower portion of said well casing, the area around said vacuum extraction well casing above said perforate lower portion being substantially sealed to impede flow of air around said well casing from the surface of the ground to said perforate lower portion of said well casing;
>
> applying a vacuum through said vacuum extraction well to said perforate lower portion of said well casing, said vacuum being effect

> to draw air through said contaminated vadose zone and to volatilize liquid contaminant that is present in said contaminated vadose zone above the water table and surrounding said perforate lower portion of said well caisng [*sic*], the vapor containing the volatilized liquid contaminant being drawn into said well casings and thence being transported to a location above ground.

A careful reading of claim 8 shows that each of its essential elements was anticipated in prior art. For example, the ORS venting system formulated in 1981 shows that (1) it is a process for decontaminating soil above the water table (i.e., the vadose zone, (2) by pulling air through the ground saturated with hydrocarbon (i.e., using a vacuum), (3) it uses a well casing perforated at the lower end that is placed in the vadose zone, (4) the area around the surface is sealed so as to impede the flow of air from the surface to the perforate portion of the well casing, and (5) the vacuum created by pulling air through the ground causes both the free liquid and the liquid trapped in the soil to vaporize and then be expelled above ground.

The court notes that nothing in claim 8 refers to the strength of the vacuum utilized to vaporize the liquid contaminant. It was only later, in response to the patent office's rejection of the claim, that the plaintiff urged the patent office to consider that it was a very strong vacuum created and utilized to volatilize the liquid contaminant. The court concludes that this gloss placed upon claim 8 was ineffective to validate that claim because prior art clearly established the need for a vacuum strong enough to pull air through the soil and, thereby, volatilize the liquid contaminant in the soil.

API 4429 also anticipated the essential elements of claim 8. That publication discussed a model wherein a shaft is sunk into the center of a circular spill and fitted

with a pipe that is slotted for an interval extending from the water table to above the depth that is contaminated with vapors (i.e., the vadose zone). The pipe is sealed so that no air flows along the pipe except where it is slotted, and the top of the pipe is connected to a blower which draws air up the pipe and exhaust it to the atmosphere. Vent holes are sunk in the ground around the perimeter of the spill so that when the blower is activated, air can flow into these vent holes. Although API 4429 initially references a flow of air "through the vapor-laden soil," it also recognizes that the volatilization of hydrocarbons will occur. Although fairly technical in its presentation, API 4429 clearly suggests that as vapors are removed through the use of a vacuum, the remaining liquid contaminant is vaporized to fill the void created by the lack of equilibrium resulting from the removal of the earlier existing vapors.

Not only were the elements of claim 8 anticipated in the prior art, but the elements of claim 8 were also obvious. Under 35 U.S.C. § 103, a device for process is not patentable "if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains."

Because claim 8 essentially describes a method of applying a vacuum "to draw air through said contaminated vadose zone and to volatilize liquid contaminant that is present in said contaminated vadose zone," the court finds that the defendants have shown that this process was obvious in light of the prior art. As noted previously, the ORS soil vent system, the Duane Knopik system, and the Exxon and Shell systems all utilized a vacuum to draw air through contaminated portions of the vadose zone. With respect to the volatilization of the liquid contaminant, the ORS soil vent system was described as working

"by simply pulling air through ground saturated with hydrocarbon. This causes both the free liquid and that trapped by soil to vaporize. These vapors get carried through the [Explosion Proof Vent System] to the outside atmosphere where they're readily disbursed. . . . Pulling air through the ground results in the hydrocarbon liquid vaporizing and then being carried through the Vent System. . . ."

For the foregoing reasons, this court holds that claim 8 of the patent in suit is invalid.

However, even if claim 8 is valid, the court finds that the defendants have not infringed the patent. Infringement does not occur if the alleged infringer is simply utilizing what is obvious or what was taught by the prior art.

The evidence before the court shows that the defendants' system simply draws air through the soil to remove vapors of contaminant in the same manner as prior soil venting systems. The system used by the defendants is no different from that formulated by Duane Knopik, ORS, Exxon, and Shell. The defendants' system merely draws air through the soil, removing vapors from the contaminated area, thereby allowing additional molecules of liquid gasoline to evaporate and diffuse upward and then be extracted through the use of the vacuum created in the shafts sunk into the soil. It is obvious that the defendants' system utilizes a technique that is disclosed by the prior art.

For the foregoing reasons, the court finds that even if claim 8 of the patent in suit is valid, the defendants have not infringed that claim.

IV. SUMMARY

The plaintiff's motion to compel discovery [pleading no. 38] is DENIED.

The defendants' motion for summary judgment with respect to claim 8 of the patent [pleading no. 41] is GRANTED.

SO ORDERED, this 12th day of May, 1994.

/s/ Robert L. Vining, Jr.
ROBERT L. VINING, JR.
United States District Judge

[Entered on Docket Apr. 17, 1994]

STATUTORY PROVISIONS

§ 102. Conditions for patentability; novelty and loss of right to patent

A person shall be entitled to a patent unless—

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for patent, or

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of the application for patent in the United States, or

* * * *

(g) before the applicant's invention thereof the invention was made in this country by another who had not abandoned, suppressed, or concealed it. In determining priority of invention there shall be considered not only the respective dates of conception and reduction to practice of the invention, but also the reasonable diligence of one who was first to conceive and last to reduce to practice, from a time prior to conception by the other.

(July 19, 1952, c. 950, 66 Stat. 797; July 28, 1972, Pub.L. 92-358, § 2, 86 Stat. 502; Nov. 14, 1975, Pub.L. 94-131, § 5, 89 Stat. 691.)

§ 103. Conditions for patentability; non-obvious subject matter

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.

* * * *

(As amended Nov. 8, 1984, Pub.L. 98-622, Title I, § 103, 98 Stat. 3384.)

§ 251. Reissue of defective patents

Whenever any patent is, through error without any deceptive intention, deemed wholly or partly inoperative or invalid, by reason of a defective specification or drawing, or by reason of the patentee claiming more or less than he had a right to claim in the patent, the Commissioner shall, on the surrender of such patent and the payment of the fee required by law, reissue the patent for the invention disclosed in the original patent, and in accordance with a new and amended application, for the unexpired part of the term of the original patent. No new matter shall be introduced into the application for reissue.

The Commissioner may issue several reissued patents for distinct and separate parts of the thing patented, upon demand of the applicant, and upon payment of the required fee for a reissue for each of such reissued patents.

The provisions of this title relating to applications for patent shall be applicable to applications for reissue of a patent, except that application for reissue may be made and sworn to by the assignee of the entire interest if the application does not seek to enlarge the scope of the claims of the original patent.

No reissued patent shall be granted enlarging the scope of the claims of the original patent unless applied for within two years from the grant of the original patent. (July 19, 1952, c. 950, 66 Stat. 808.)

§ 271. Infringement of patent

(a) Except as otherwise provided in this title, whoever without authority makes, uses or sells any patented invention, within the United States during the term of the patent therefor, infringes the patent.

(b) Whoever actively induces infringement of a patent shall be liable as an infringer.

(c) Whoever sells a component of a patented machine, manufacture, combination or composition, or a material or apparatus for use in practicing a patented process, constituting a material part of the invention, knowing the same to be especially made or especially adapted for use in an infringement of such patent, and not a staple article or commodity of commerce suitable for substantial non-infringing use, shall be liable as a contributory infringer.

(d) No patent owner otherwise entitled to relief for infringement or contributory infringement of a patent shall be denied relief or deemed guilty of misuse or illegal extension of the patent right by reason of his having done one or more of the following: (1) derived revenue from acts which if performed by another without his consent would constitute contributory infringement of the patent; (2) licensed or authorized another to perform acts which if performed without his consent would constitute contributory infringement of the patent; (3) sought to enforce his patent rights against infringement or contributory infringement; (4) refused to license or use any rights to the patent; or (5) conditioned the license of any rights to the patent or the sale of the patented product on the acquisition of a license to rights in another patent or purchase of a separate product, unless, in view of the circumstances, the patent owner has market power in the relevant market for the patent or patented product on which the license or sale is conditioned.

(e)(1) It shall not be an act of infringement to make, use, or sell a patented invention (other than a new animal drug or veterinary biological product (as those terms are used in the Federal Food, Drug, and Cosmetic Act and the Act of March 4, 1913) which is primarily manufactured using recombinant DNA, recombinant RNA, rybridoma technology, or other processes involving site specific genetic manipulation techniques) solely for uses

reasonably related to the development and submission of information under a Federal law which regulates the manufacture, use, or sale of drugs or veterinary biological products.

(2) It shall be an act of infringement to submit—

(A) an application under section 505(j) of the Federal Food, Drug, and Cosmetic Act or described in section 505(b)(2) of such Act for a drug claimed in a patent or the use of which is claimed in a patent, or

(B) an application under section 512 of such Act or under the Act of March 4, 1913 (21 U.S.C. 151-158) for a drug or veterinary biological product which is not primarily manufactured using recombinant DNA, recombinant RNA, hybridoma technology, or other processes involving site specific genetic manipulation techniques and which is claimed in a patent,

if the purpose of such submission is to obtain approval under such Act to engage in the commercial manufacture, use, or sale of a drug or veterinary biological product claimed in a patent or the use of which is claimed in a patent before the expiration of such patent.

(3) In any action for patent infringement brought under this section, no injunctive or other relief may be granted which would prohibit the making, using, or selling of a patented invention under paragraph (1).

(4) For an act of infringement described in paragraph (2)—

(A) the court shall order the effective date of any approval of the drug or veterinary biological product involved in the infringement to be a date which is not earlier than the date of the expiration of the patent which has been infringed,

(B) injunctive relief may be granted against an infringer to prevent the commercial manufacture,

use, or sale of an approved drug or veterinary biological product, and

(C) damages or other monetary relief may be awarded against an infringer only if there has been commercial manufacture, use, or sale of an approved drug or veterinary biological product.

The remedies prescribed by subparagraphs (A), (B), and (C) are the only remedies which may be granted by a court for an act of infringement described in paragraph (2), except that a court may award attorney fees under section 285.

(f)(1) Whoever without authority supplies or causes to be supplied in or from the United States all or a substantial portion of the components of a patented invention, where such components are uncombined in whole or in part, in such manner as to actively induce the combination of such components outside of the United States in a manner that would infringe the patent if such combination occurred within the United States, shall be liable as an infringer.

(2) Whoever without authority supplies or causes to be supplied in or from the United States any component of a patented invention that is especially made or especially adapted for use in the invention and not a staple article or commodity of commerce suitable for substantial noninfringing use, where such component is uncombined in whole or in part, knowing that such component is so made or adapted and intending that such component will be combined outside of the United States in a manner that would infringe the patent if such combination occurred within the United States, shall be liable as an infringer.

(g) Whoever without authority imports into the United States or sells or uses within the United States a product which is made by a process patented in the United States shall be liable as an infringer, if the importation, sale, or use of the product occurs during the term of such process

patent. In an action for infringement of a process patent, no remedy may be granted for infringement on account of the noncommercial use or retail sale of a product unless there is no adequate remedy under this title for infringement on account of the importation or other use or sale of that product. A product which is made by a patented process will, for purposes of this title, not be considered to be so made after—

(1) it is materially changed by subsequent processes; or

(2) it becomes a trivial and nonessential component of another product.

(h) As used in this section, the term "whoever" includes any State, any instrumentality of a State, and any officer or employee of a State or instrumentality of a State acting in his official capacity. Any State, and any such instrumentality, officer, or employee, shall be subject to the provisions of this title in the same manner and to the same extent as any nongovernmental entity.

(As amended Sept. 24, 1984, Pub.L. 98-417, Title II, § 202, 98 Stat. 1603; Nov. 8, 1984, Pub.L. 98-622, Title I, § 101, 98 Stat. 3383; Aug. 23, 1988, Pub.L. 100-418, Title IX, § 9003, 102 Stat. 1564; Nov. 16, 1988, Pub.L. 100-670, Title II, § 201(i), 102 Stat. 3988; Nov. 19, 1988, Pub.L. 100-703, Title II, § 201, 102 Stat. 4676; Oct. 28, 1992, Pub.L. 102-560, § 2(a)(1), 106 Stat. 4230; Dec. 8, 1994, Pub.L. 103-465, Title V, § 533(a), 108 Stat. 4988.)

§ 282. Presumption of validity; defenses

A patent shall be presumed valid. Each claim of a patent (whether in independent, dependent, or multiple dependent form) shall be presumed valid independently of the validity of other claims; dependent or multiple dependent claims shall be presumed valid even though dependent upon an invalid claim. The burden of establish-

ing invalidity of a patent or any claim thereof shall rest on the party asserting such invalidity.

The following shall be defenses in any action involving the validity or infringement of a patent and shall be pleaded:

(1) Noninfringement, absence of liability for infringement or unenforceability,

(2) Invalidity of the patent or any claim in suit on any ground specified in part II of this title as a condition for patentability,

(3) Invalidity of the patent or any claim in suit for failure to comply with any requirement of sections 112 or 251 of this title,

(4) Any other fact or act made a defense by this title.

In actions involving the validity or infringement of a patent the party asserting invalidity or noninfringement shall give notice in the pleadings or otherwise in writing to the adverse party at least thirty days before the trial, of the country, number, date, and name of the patentee of any patent, the title, date, and page numbers of any publication to be relied upon as anticipation of the patent in suit or, except in actions in the United States Claims Court, as showing the state of the art, and the name and address of any person who may be relied upon as the prior inventor or as having prior knowledge of or as having previously used or offered for sale the invention of the patent in suit. In the absence of such notice proof of the said matters may not be made at the trial except on such terms as the court requires.

(July 19, 1952, c. 950, 66 Stat. 812; July 24, 1965, Pub. L. 89-83, § 10, 79 Stat. 261; Nov. 14, 1975, Pub.L. 94-131, § 10, 89 Stat. 692; Apr. 2, 1982, Pub. L. 97-164, Title I, § 161(7), 96 Stat. 49.)

FEDERAL RULES OF CIVIL PROCEDURE

Rule 56. Summary Judgment

(a) For Claimant. A party seeking to recover upon a claim, counterclaim, or cross-claim or to obtain a declaratory judgment may, at any time after the expiration of 20 days from the commencement of the action or after service of a motion for summary judgment by the adverse party, move with or without supporting affidavits for a summary judgment in the party's favor upon all or any part thereof.

(b) For Defending Party. A party against whom a claim, counterclaim, or cross-claim is asserted or a declaratory judgment is sought may, at any time, move with or without supporting affidavits for a summary judgment in the party's favor as to all or any part thereof.

(c) Motion and Proceedings Thereon. The motion shall be served at least 10 days before the time fixed for the hearing. The adverse party prior to the day of hearing may serve opposing affidavits. The judgment sought shall be rendered forthwith if the pleadings, depositions, answers to interrogatories, and admissions on file, together with the affidavits, if any, show that there is no genuine issue as to any material fact and that the moving party is entitled to a judgment as a matter of law. A summary judgment, interlocutory in character, may be rendered on the issue of liability alone although there is a genuine issue as to the amount of damages.

(d) Case Not Fully Adjudicated on Motion. If on motion under this rule judgment is not rendered upon the whole case or for all the relief asked and a trial is necessary, the court at the hearing of the motion, by examining the pleadings and the evidence before it and by interrogating counsel, shall if practicable ascertain what material facts exist without substantial controversy and what material facts are actually and in good faith controverted. It shall thereupon make an order specifying

the facts that appear without substantial controversy, including the extent to which the amount of damages or other relief is not in controversy, and directing such further proceedings in the action as are just. Upon the trial of the action the facts so specified shall be deemed established, and the trial shall be conducted accordingly.

(e) Form of Affidavits; Further Testimony; Defense Required. Supporting and opposing affidavits shall be made on personal knowledge, shall set forth such facts as would be admissible in evidence, and shall show affirmatively that the affiant is competent to testify to the matters stated therein. Sworn or certified copies of all papers or parts thereof referred to in an affidavit shall be attached thereto or served therewith. The court may permit affidavits to be supplemented or opposed by depositions, answers to interrogatories, or further affidavits. When a motion for summary judgment is made and supported as provided in this rule, an adverse party may not rest upon the mere allegations or denials of the adverse party's pleading, but the adverse party's response, by affidavits or as otherwise provided in this rule, must set forth specific facts showing that there is a genuine issue for trial. If the adverse party does not so respond, summary judgment, if appropriate, shall be entered against the adverse party.

(As amended Dec. 27, 1946, eff. Mar. 19, 1948; Jan. 21, 1963, eff. July 1, 1963; Mar. 2, 1987, eff. Aug. 1, 1987.)

RULES OF THE FEDERAL CIRCUIT

Rule 36. Judgment of affirmance without opinion.

The court may enter a judgment of affirmance with out opinion, citing this rule, when it determines that any of the following circumstances exist:

(a) the judgment, decision or order of the trial court appealed from is based on findings that are not clearly erroneous;

(b) the evidence in support of a jury verdict is sufficient;

(c) summary judgment, directed verdict, or judgment on the pleadings is supported by the record;

(d) the decision of an administrative agency warrants affirmance under the standard of review in the statute authorizing the petition for review; or

(e) a judgment or decision has been entered without an error of law;

and an opinion would have no precedential value.

Claim 8 of U.S. Re. Patent 33,102

8. A process for decontaminating an underground vadose zone which is located above the water table and is contaminated with a volatile liquid contaminant which is percolating downwardly through said vadose zone, which comprises:

establishing a vacuum extraction well comprising a well casing having a perforate lower portion located in the contaminated vadose zone and above the water table so that fluids can flow from said contaminated vadose zone into said perforate lower portion of said well casing, the area around said vacuum extraction well casing above said perforate lower portion being substantially sealed to impede flow of air around said well casing from the surface of the ground to said perforate lower portion of said well casing;

applying a vacuum through said vacuum extraction well to said perforate lower portion of said well casing, said vacuum being effective to draw air through said contaminated vadose zone and to volatilize liquid contaminant that is present in said contaminated vadose zone above the water table and surrounding said perforate lower portion of said well [caisng] *casing* the vapor containing the volatilized liquid contaminant being drawn into said well casing and thence being transported to a location above ground.